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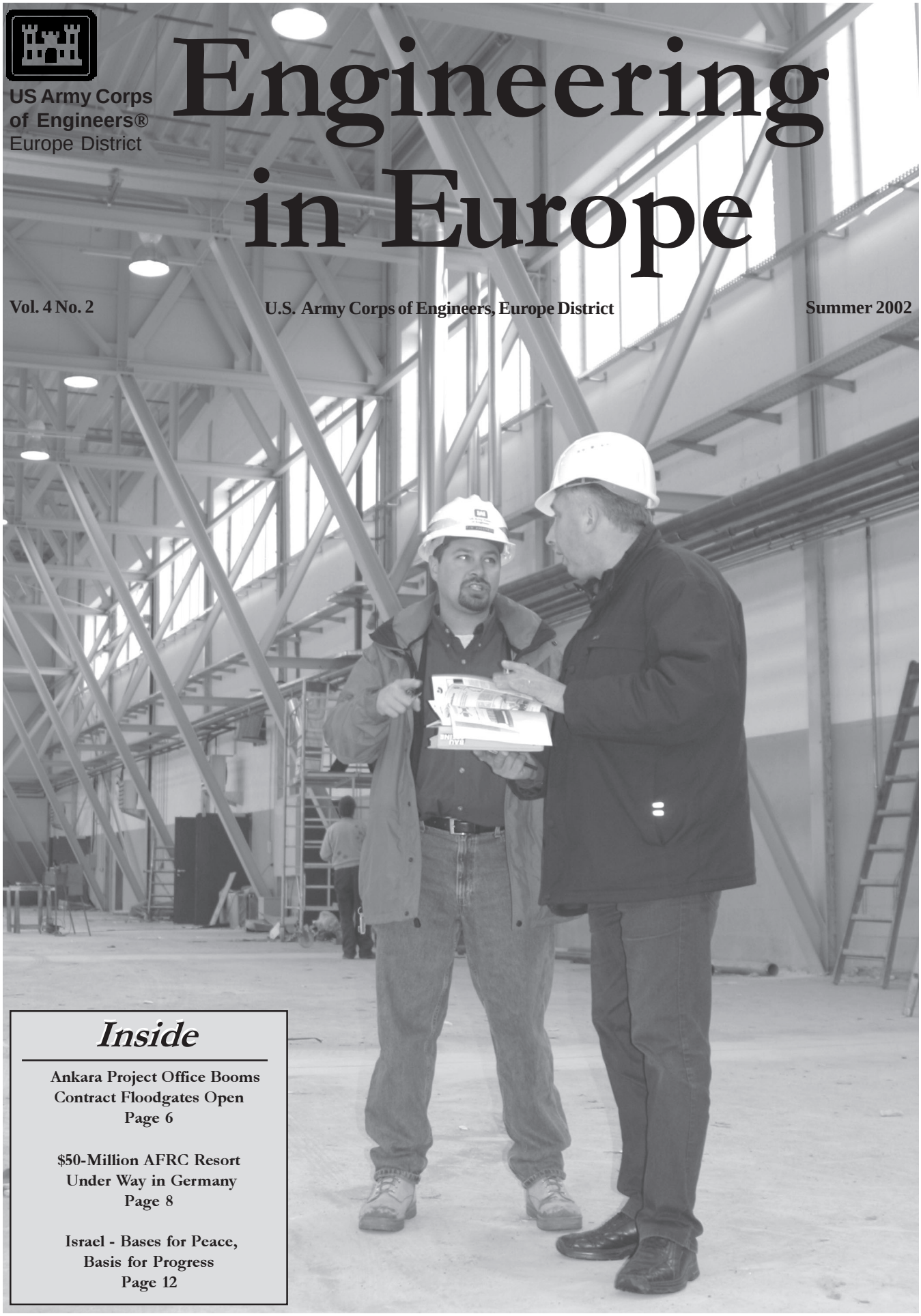

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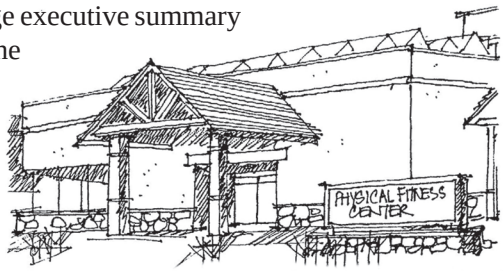
EB-E Summary Earns Top Design Award

By Brian H. Temple

The planning process was lengthy, tedious, and originally conducted behind closed doors but it eventually crystallized into a 28-page executive summary that earned a first-place award by the American Planning Association.

Judges from the association, and the University of Chicago, scrutinized the collection of drawings, photos and artists' renderings of Grafenwöhr's billion-dollar Efficient Basing-East project in April. The booklet, titled "Executive Summary, Efficient Basing East, East Camp Grafenwöhr, Germany" took top honors in this year's Federal Planning Division Area Development Plan category.



Rendering by Nakata Planning Group

"Overall the faculty was impressed with the high quality of most submittals. The scores were high and competition keen," said Charles Hoch, director, Urban Planning and Policy Program, College of Urban Planning and Public Affairs, University of Illinois at Chicago.

Europe District employees joined Marc Shereck, an urban designer with Nakata Planning Group, as well as other team members, and produced the executive summary. The product was intended to bring the project to life for Congress and Army leadership, said Dan LeFevre, project manager with the Corps.

In its original stages the proposal was a monstrous book, but had to be eventually whittled down to something reasonable he said.

"It was a big, giant stationing plan, four inches thick that detailed nine options of where units would go," he said. "We tackled three options at a time. 'Well, we don't like these two, can we expand on this one, and then finally – boom, boom, boom – we got the final option.'"

That "final option" went through a design process and ended up being the award-winning product.

According to LeFevre, Shereck completed the executive summary in about three months. Shereck and his team came to Grafenwöhr, scoped out the site, designed first-rate graphics, and submitted the preliminary booklet at the conclusion of the three-week data collection period LeFevre said.

This is United States Army Europe's (USAREUR) single largest project topping off at just over one billion dollars, LeFevre said. He takes pride in the magnitude of the project and the executive summary representing it.

"It all started with one of these $200,000 stationing plans," LeFevre said. "It was exciting to see our most important projects matched with one of their most talented guys. Marc has something special and had a way of making it all come together."

LeFevre said Shereck's talents were key in this process, and he would enjoy working with him again.

Shereck said he is honored by the recognition, and that he has enjoyed his work with Corps team.

"It is recognition from my peers … for work I have a great deal of passion for. I've been lucky in that most of my associations with the Corps of Engineers have been working partnerships on interesting projects that have established planning precedent," Shereck said.

Engineering in Europe

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On the Cover ...
Tim Anderson (left), construction representative for Europe District, talks to Heinrich Wild, Staatsbauamt Fulda, about an inspection of this $2.75 million hangar in Hanau, Germany. See story on Page 3.

Photo by Brian H. Temple

For A Job Well Done

Khalil Karimi, Wiesbaden Project Officer (left), receives a commander's coin from Lt. Gen. Robert Flowers, Commanding General of USACE (right) while Al Hasty, Project Office Engineer with the Wiesbaden Project Office looks on. Karimi showed Flowers the ongoing bathroom and laundry renovations taking place in Wiesbaden's Crestview Village during Flower's visit to Europe District in April.

Blackhawks to Move Into New Hangar

By Brian H. Temple

Just the diagram of the steel-beamed structure is impressive enough to make a kid with an Erector Set ™ jealous. Add new electrical systems, an overhead hoist, and a fire suppression system to top it off, and you'll have Fliegerhorst Kaserne's most modern addition – the new home for the 1st Infantry Division's, D. Company, 2-501st Aviation Battalion's Blackhawk helicopters.

The U.S. Army Corps of Engineers Europe District is scheduled to slide open the doors to the $2.75 million hangar project in Hanau, Germany in July.

The former hangar, a World-War-II-era structure, was originally going to undergo renovations, but one site visit in May of 2000 encouraged decision makers to choose a completely new structure.

"During a site visit the participants heard loud popping and cracking coming from the 60 plus-year-old wood structure every time the wind blew," said Michael Henry, a Project Engineer in the Hanau Resident Office.

> *"What could have easily been a disastrous situation ... has turned out to be an exemplary facility that will be usable for the next 60 plus years."*
>
> Michael Henry
> Project Engineer

Priorities drastically changed Henry said, and plans for a new hangar went into production.

In a joint venture, the *Staatsbauamt Fulda* and Arge Ulrich-Elo Fertigbau (J.V.), Fulda, began to build the steel-trussed frame in August of 2000. Switching from a minor renovation to a complete rebuild, however, required planners make significant changes, obtain additional funding and add one more contractor. H. Kammerdiener of Gersfeld paired up with Staatsbauamt Fulda to tackle the interior work, which included new electrical and heater systems, redoing floors, painting walls, replacing tiles, etc.

"With an aged facility such as this, with so many users since the late 1930's, it was difficult to be certain what kind of work was done when, and why," Henry said.

See "*Hangar*" on Page 4

Hangar: Safety features and state of art equipment installed

continued from page 3

The building concealed many renovation challenges, Henry said, and the floor and the electrical system were especially "dilapidated."

This was no surprise to Delta Company.

In the former hangar, they plugged a cart-mounted power distribution box into a wall socket and then drew power from the box. The box would convert the German voltage into power that they could use for the aircraft, but the power was unreliable.

"Some days we would plug in and it would stop working. We would have to move the aircraft to the hangar next door to get power," said Warrant Officer Daniel Loomis, Production Control Officer, Delta Company.

Photo by Brian H. Temple

Tim Anderson, construction representative for Europe District's Hanau office points out the magnitude of the steel support frame used in this $2.75-million hangar in Hanau, Germany.

You don't have to talk to Loomis for long to know that he is ready for the battalion's new home. The days of electrical blowouts are soon over. The new hangar has a built in power supply that converts the electricity and can directly power the aircraft.

A new overhead hoist that travels the length of the hangar will also save them some muscle aches. The hydraulic system can be used with a push of a few buttons.

Loomis said, "It is very convenient for the helicopter maintainers. They don't have to move heavy objects around the hangar, or leave a lot of extra cords laying around. The new system is very simple and it's very safe with how they developed the power box."

When the doors are opened, the facility should unquestionably meet the needs of Loomis and crew. He was there along during the process to help with its construction thanks to the project team concept.

Henry said the key to working through the design, as well as the construction, was bringing all the parties on board.

"What could have easily been a disastrous situation … has turned out to be an exemplary facility that will be usable for the next 60 plus years; especially with all that steel!" Henry said.

"Since the process … included a representative of the end-user, the actual helicopter mechanics, their point-of-view was directly conveyed and represented in the resulting facility. It pays to be inclusive of the real stakeholders. That's the whole point of successful teamwork."

USACE Leadership - Gettin' Out, Shaking Hands

Photos by Grant Sattler

(Above) Brig. Gen. Carl Strock, Director of Military Programs for USACE (left), visits Simon Rosa, chief of Plans, Security and Operations Division (middle), and Lt. Col. Stephen Tennant, Deputy Commander, Europe District, during a March visit in Wiesbaden.

(Left) Maj. Gen. Hans VanWinkle, Deputy Commanding General, USACE, meets Gregg Takamura, Chief of Construction, as well as other Europe District employees during his May visit to Wiesbaden.

Renovation Preserves Historical Building for Accountant Headquarters

By Grant Sattler

Although renovation is just 20 percent into the "pardon our dust" phase, Defense Finance Accounting Service employees throughout Europe can bank on their new consolidated headquarters being fit for a kaiser.

The three story Building 3200 on Kaiserslautern's Kleber Kaserne, with its historic *Jugendstil* façade, sunny courtyards and clock tower, will be ready to take on new life as an administrative center for approximately 270 workers by August 2003.

That is thanks to a time line shortened by almost two years because of authorization from the German Ministry of Defense for the U.S. Army Corps of Engineers, Europe District to manage the project directly with the contractor, without going through the *Staatsbauamt Kaiserslautern LBB*.

"We were approached by [DFAS] a couple of years ago with a study on the project," said Lalit Wadhwa, Europe District's chief, project design section, Installation Support. When DFAS planners learned that LBB did not project completion of the project until 2005, they requested Europe District ask for permission to manage the construction.

"We said 'OK, we'll assist where we can … that's a very unusual process, but we'll see,'" Wadhwa said. Europe District presented justification based on communications installations for the DFAS financial network and received permission from Bonn, with provision that designs be coordinated with the local German historical office and the Staatsbauamt.

DFAS is consolidating its Europe-based offices to place operations under one roof and to realize cost savings from the reduction in the number of facilities. "We're establishing our consolidation date based on the availability of the new facility," said Jan Nordsiek, the project manager for DFAS.

The $7.7 million project is the largest Europe District has undertaken in recent years in Germany outside the indirect process stipulated by the international agreement known as ABG75.

Gutting and rebuilding a century-old, three story, 122,000 square foot historical building could be a nightmare, as extensive renovations are often fraught with hidden problems, escalating costs and slipping timelines. But careful advanced structural analysis and detailed preparation for work on the building is keeping the project within budget.

"We did a thorough investigation of the building beforehand, including environmental issues and asbestos abatement," Wadhwa said. "We also hired an architecture and engineering firm to do structural design to supplement our in-house design." **See *"DFAS"* on Page 14**

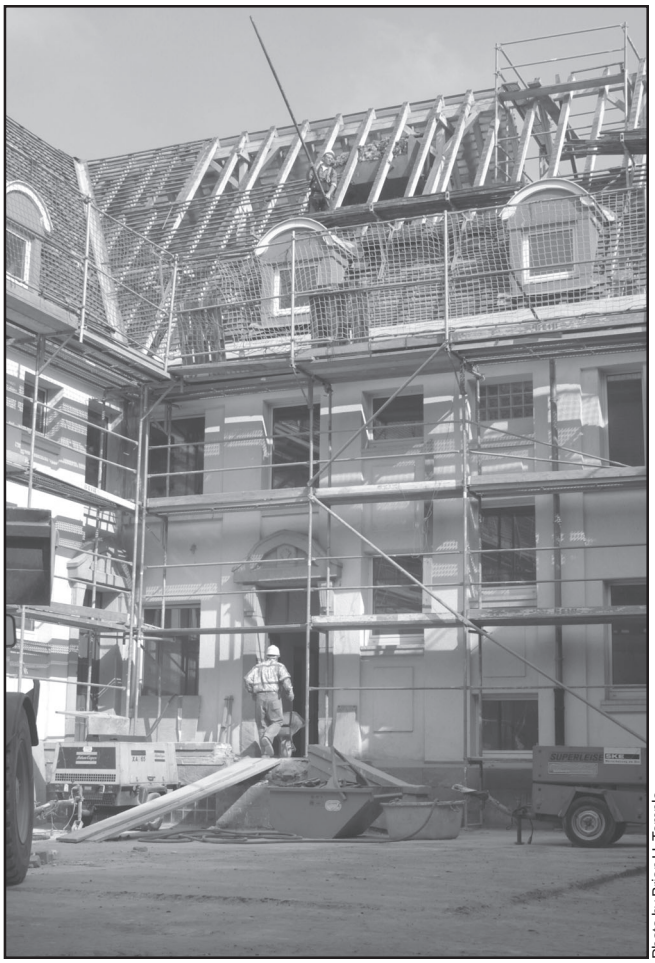


Photo by Brian H. Temple

Contract workers for SKE GmbH gut the interior and rebuild the roof of Building 3200 on Kaiserslautern's Kleber Kaserne. This century-old, three story, 122,000 square foot historical building will be the European headquarters for the Defense Finance Accounting Service. The building is expected to be ready by August 2003.

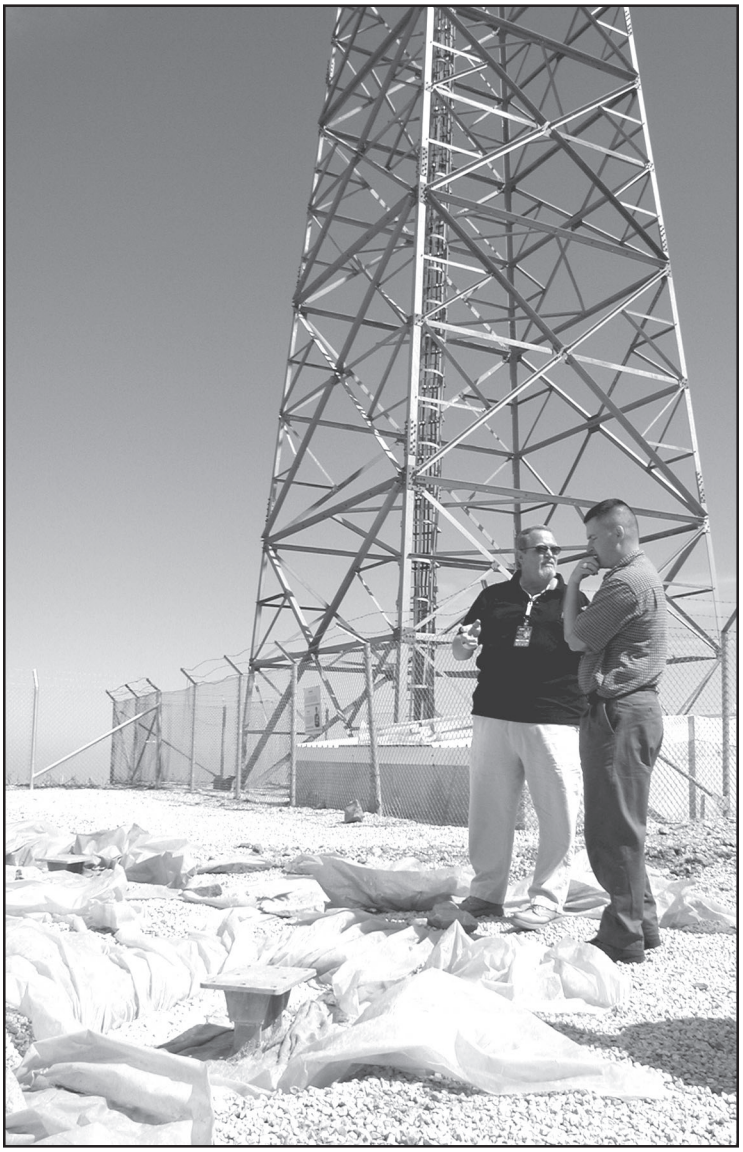
Contract Floodgates Open in Ankara

By Brian H. Temple

The U.S. Engineering Group's (TUSEG) recently resurrected Ankara office in the Republic of Turkey is doing just about everything under the sun - from new roofs and seismic work to guard posts and installing solar panels. A recent revival of construction in Turkey's capitol is keeping TUSEG staff busy with a diverse workload.

Shake, Rattle, and Roll

Atop a 3,000-foot mountain south of Ankara, the U.S. Army Corps of Engineers, EMTA Construction Co., Inc., and Sun Power are installing 212 solar panels to keep a seismic tower active year round. The tower, located at Elmadag, a remote site amid sheep, cattle and their herders, is one in a network measuring earth-shifting activity throughout Turkey.



John Rogers, chief of Ankara Project Office (left), updates Maj. Joe Gandara, area engineer for the TUSEG office, on the status of the Elmadag tower solar project in May.

Local power is unreliable and is cut off during the winter months said John Rogers, chief of the Ankara Project Office. The Corps was hired to ensure the tower remains active - solar power was the answer.

The $206,000 project, completed in June, is the largest solar project of this type in Turkey. The continued power source will enable staff at the Kandili Observatory and Earthquake Research Institute at Bogazici University to use the structure with its 300-foot cable descending below the earth's surface to gather data on earthquake activity. The Elmadag tower sits on a relatively stable plateau, and this makes it one of the more reliable towers for the university, Rogers said.

Formerly, the U.S. Air Force Technical Applications Center, under the guidelines of the Comprehensive Nuclear Test-Ban Treaty, operated the tower to measure underground nuclear detonations but turned it over to the Turkish government about a year and a half ago. Under the transfer agreement, the U.S. military was obliged to assist in the operations of the station, said Air Force Maj. Jeffrey Rumrill, Chief Installations and Activities for the Office of Defense Cooperation, Turkey.

Subsequently, the Turkish military gave the tower to the Kandili Observatory and Earthquake Research Institute at Bogazici University, but the U.S. still helps with its upkeep, Rumrill said.

The university did not have the technical capability on hand to maintain the site, but with a permanent solar-power system the university can get a broader and more consistent range of data, he said.

I Get By With a Little Help …

Most of the Ankara Project Office's work is in the metropolis of just over 3.5 million people, and the doors to the Ankara project office opened full time with Roger's arrival in early May. With April's end to an approximate five-year delay on military construction at the Office of Defense Cooperation, projects for the office are quickly gaining momentum.

With the arrival of the updated "2002 Construction Circular," the international agreement between the United States and the Republic of Turkey dictating construction practices, the floodgates on a back log of projects are about to burst open.

The former construction circular, which was implemented from 1997 through early 2002, bureaucratically suffocated the direct contratincg process. Because of the lack of flexibility during that timeframe, much military construction was put on hold.

Renovations to the ODC headquarters were among the projects that were in limbo.

Between now and November of this year, $1.4 million is budgeted for ODC renovations alone Rumrill said. The building's roof is already under way and once the exterior work is completed interior renovations will begin.

Rogers said he was heading to work in the Republic of Georgia, but was asked if he would take an assignment in Ankara to develop relationships with U.S. agencies, including staff at the ODC. He was happy to oblige.

"My vision for the Corps here is to be the construction manager of choice," Rogers said. "I'm the Corps salesman, the Corps inspector, the Corps estimator, the Corps statement of work author … I'm the Corps in a nutshell in Ankara."

Rumrill, the staff engineer for the ODC, and the single point of contact between the Turkish and U.S. militaries for just about anything related to building, intends to tap into that shell and use Roger's talents.

With the U.S. government back on track with major construction projects, other locations throughout Turkey - Incirlik Air Base, Izmir, and Eskisehir - should see renovations, new construction, and possible expansions as well, he said.

Rumrill said he plans to use the Corps' talents wherever he can and wherever else construction may occur.

"I think the Corps of Engineers is going to see a tremendous increase in work over the next five to 10 years," he said.

Photos by Brian H. Temple

Maj. Joe Gandara, area engineer for the TUSEG office (left) gets an update on the Office of Defense Cooperation roof construction from Orkun Dincer, EMTA Consruction Co., Inc., Project Manager. Europe District and EMTA Construction are working together on several renovation projects at the Office of Defense Cooperation in Ankara.

Nickel and Dime Jobs Add Up

Ankara's projects over the past have not had multi-million dollar price tags attached, but even with the "nickel and dime" nature of their work the Corps has overseen approximately $256,000 in renovations and construction at the ODC, said Rogers.

"Our projects in Ankara are much more diverse than what you may see in Germany. Not only are we doing standard construction projects such as roofing or building a playground at the DoDDS (Department of Defense Dependants Schools) school, but we're also doing communications and solar work," he said.

The entrance of the Office of Defense Cooperation once had uneven, stone steps. Visitors now enter via smooth concrete steps. The 72-year-old building's $25,000 facelift is one of several upgrades completed to the ODC by Europe District.

External renovations to the ODC headquarters and grounds are examples of how the projects add up.

The entrance of the headquarters building once had uneven, stone steps like set of crooked teeth that were a hazard to walk on, Rumrill said.

See *"ODC"* on Page 10

$50 Million AFRC Resort Under Way

By Brian H. Temple

The 330-room facility is pretty much an artist's rendering and a concrete foundation at this point, but come fall 2004 it will be a $50 million resort hotel at the base of Germany's Bavarian Alps.

The U.S. Army Corps of Engineer's Europe District has embarked on a two-year project to build a premiere resort for the Armed Forces Recreation Center Europe in Garmisch-Partenkirchen.

Peter Isaacs, chief operating officer for the Community and Family Support Center in Alexandria, Va., said the new hotel will replace the antiquated, small and operationally inefficient existing hotels with a modern structure.

With larger rooms, a fitness center, spa and wellness center, swimming pool, two restaurants and a lounge, service members and their families will reap the benefits, he said.

"The Corps has been involved to some degree with AFRC projects in Europe, the Hale Koa Hotel in Hawaii, Shades of Green acquisition at Walt Disney World, and the Dragon Hill Lodge in Yongsan, Korea," Isaacs said. "We have a long history of successful partnership with the Corps of Engineers."

Partnering with AFRC engineers and leadership, the Corps is building the hotel through construction phases. Phase one, completed before May's groundbreaking, was for a $246,000 berm and perimeter fence.

"Phasing the work allowed us to do excavation and start construction in the spring in order to make our completion date of April 2004," said Europe District Project Manager Heidi Meissner.

Phasing work is a fairly common German practice, Meissner explained, and is similar to American Design-Build. It speeds up the start of construction concurrent with detailed final design planning.

"By completing the major structure and getting the roof on over the summer, workers will be able to continue construction through the winter months inside," Meissner said.

With an April '04 completion this will give AFRC staff about six months to equip and prepare the hotel for its fall opening.

Photos by Brian H. Temple

(Above) Workers with Porr AG of Murnau, Germany, work on the foundation to the Armed Forces Recreation Center Europe's latest addition - a $50 million, 330-room resort hotel in Garmisch-Partenkirchen. Europe District embarked on the two-year project this Spring and is scheuled to be completed in April 2004.

(Left) Brig. Gen. Antonio Taguba, Commanding General CFSC (left) and Richard LeBrun, General Manager AFRC-Europe (right) receive hard hats and ceremonial shovels from Lt. Col. Stephen Tennant, Deputy Commander, Europe District at the May 7 groundbreaking.

The existing hotels, two in Cheimsee and two in Garmisch, have been a part of southern Bavaria's post war history, but in order to bring the facilities up to AFRC's current standards the Corps is building the new facility.

"We are extremely excited about giving guests so many options for relaxation and recreation in one facility," said Richard LeBrun, general manager of AFRC Europe.

For information on AFRC hotels: www.armymwr.com/portal/travel/recreationcenters.

Regional Management Board Talks Better Business

By Grant Sattler

Seventeen members of North Atlantic Division's Regional Management Board met May 14-16 in Trier, Germany, for an off-site conference.

Europe District hosted the bi-monthly meeting in the oldest of Germany's cities, founded in 16 B.C. by the Romans under Emperor Augustus as a trade center on the Mosel river. Amid enduring landmarks of engineering, it proved an appropriate place for representatives of the North Atlantic Division and its six districts to map progress in the development of the Regional Business Center and to benefit from a professional development tour.

"This has been one of our most successful meetings, both in terms of process and in product," said James Thomasson, Norfolk District's chief of PPMD.

The working group — composed of representatives from the division headquarters and its districts — is charged with making recommendations to North Atlantic Division's senior leadership and district engineers who gather several times annually as the Regional Business Center's Board of Trustees.

"The RMB's initial structure was dictated by headquarters as directorate and program managers and the resource managers of each district, plus the two SESs," said Tom Waters, NAD Director of Civil Works and Business Management Directorate. "We've added three functional chiefs, two chiefs of engineering and one chief of contracting."

Photo by Grant Sattler

Staff ride attendees visit Clervaux, Belgium, where the 110th Infantry Regimental Headquarters held off *Wehrmacht* forces from a medieval fortress.

The RMB's typical two-day meetings involve conceptualizing ways to better operate as a region. Regional workload and resource management initiative topics for the Trier meeting included a long term look at shore protection programs in the U.S. and the MILCON program in Europe. Their intent is to ensure NAD has the technical knowledge and capacity to meet future engineering mission needs.

It's "get down to business" as soon as the RMB convenes as the group members know each other well. While each individual represents his or her own organization, together they are in fact as well as in name a group serving the region.

"Forever in the Corps we've functioned as individual districts. The current business environment we're in requires that we not only operate well as districts, but that we also operate as a region," RMB Co-chair Waters said. "The benefit we get is that we take the good things that are happening in all six of our districts and share it and get the compounded success and synergy."

Becoming a catalyst for change has been a growth process for the RMB. "We met more frequently early on and then started by recommending the structure [for the RMB] based on what we needed to accomplish," Thomasson said.

"Most of our meetings were spent taking a look at certain issues, execution of the program, resolving obstacles to executing the program. Then we really focused on business monitoring rather than business improvement. Now we are looking at how we improve it."

Waters explained, "Priorities and agendas are driven by the commanders — who comprise the board of trustees — and they've given us four broad areas to work in." Agenda items are developed and regionalization issues assigned for study under the four topical areas defined as capable workforce, regional workload management, sharing good ideas, and contingency operations.

RMB Co-Chair Susan Turek, NAD's Director of Resource Management, said that the Board of Trustees has taken an active role in the Regional Business Center concept. "That is part of the success … why we've been able to move out," bringing about good results she said, indicating there is some variance across the Corps in implementation of the Regional Business Center concept.

See *"RMB"* on Page 17

Field Force Engineering Makes Difference During Warfighter

By Brian H. Temple

When today's combat engineer deploys he can bring thousands of civilian and military advisors with him in a suitcase-sized deployable kit — well, sort of.

Through the use of a self contained secure tele-engineering communications system, scores of commanders have interacted with U.S. Army Corps of Engineers employees worldwide to get expert guidance when they need it on the front lines.

During V Corps' March Warfighter in Grafenwöhr, Germany, members of the Engineering Research Development Center (ERDC) in Vicksburg, Miss., as well as staff from Europe District, helped Field Force Engineering doctrine inch closer to reality.

Col. Todd Semonite, V Corps engineer and commander of the 130th Engineer Brigade from Hanau, Germany, said the union of technology and USACE talents plays a pivotal role in his engineering missions.

"I've been with the Corps of Engineers, so I know what capabilities they have. The problem is most of the Corps expertise is not here on the battlefield," Semonite said.

But with Field Force Engineering Semonite can bring those experts closer to the front.

For example, Semonite says friendly forces consider using a bomb-damaged bridge. One of his combat engineers can shoot video of the bridge's damage, such as exposed rebar, save it to disk, and then send it along with pertinent data to ERDC for analysis. The ERDC team receives the information via the secure system, makes the analysis, and shoots it back to the command.

"It's the ability to be able to reach back, to be able to take advantage of that capability and to bring that capability from CONUS onto the battlefield. It's phenomenal," Semonite said.

Lt. Gen. Robert Flowers, USACE commanding general, visited Warfighter and said his customers were taking advantage of Corps resources.

"Every commander in chief's staff that's had the augmentation of a Field Force Engineering element has enjoyed and appreciated the increased capability that it brings," Flowers said.

See *"FFE"* on Page 24

ODC: Workload to last for years

continued from page 7

Visitors now enter the building via smooth, pyramid fashioned concrete steps. With new handrails, lighting, paint and landscaping the 72-year-old building's $25,000 facelift is one of several upgrades.

The new motor pool gate and guard shack, the parking lot behind headquarters, and a safe room added $31,000 to the tab.

Water leaks in the ODC's roof bumped it's replacement to the top of the priority list, Rumrill said. The $200,000 project started in May and is expected to last until November. Once completed, workers can start the interior improvements.

The electrical systems and plumbing have been neglected and are in need of serious help, Rumrill said.

However, now that money is available and the updated construction circular makes it easier for contracting, headquarters will be busy with interior work once the roof is complete.

Other projects in town totalling approximately $715,000 add to the Corps' mission.

The U.S. embassy nearby will get a new guardhouse this summer, and the commissary will get an improved sprinkler system.

The DoDDS combined school will see construction making it a safer place for the students and faculty. Sheer wall will be installed for earthquake protection, and asbestos based tiles will be replaced over the summer.

And, when the students return to school in the fall, the school bus will have enlarged turn around space so it does not have to back out of the parking lot each morning and afternoon.

"The Corps is involved in just about every facet of this community," Rogers said.

Incirlik Improves Anti-Terrorism Measures; Greater Stand-Off

By Brian H. Temple

Concrete pyramids linked together by rusty cables were common obstacles blocking parking for months, but with an increase in force protection construction, parking lots on Incirlik Air Base are starting to reopen.

When a joint security vulnerability assessment team visited Incirlik about two years ago, base staff chose to heed their suggestions.

"We shut down practically every parking lot on base," said Capt. Todd Plotner, Project Engineer for the Corps of Engineer's Incirlik office. "Dragon's teeth were strewn all over base."

Lots were closed with concrete blocks, or "dragon's teeth," to keep vehicles from parking within 25 meters of buildings. This caused a significant reduction in the quality of life for residents, Plotner said, as about a third of the parking spaces were lost.

Europe District is now working with Base Civil Engineering and EMTA Construction Co., Inc., on a $440,000 venture installing anti-terrorism parking lots. Higher curbs are being installed to keep vehicles from ramming facilities, and vertical pipes are being placed in delivery driveways as well.

The pipes run about three feet underground and are somewhat challenging to lift out of place, Plotner said. They do provide a significant defense against ramming. They are also more practical.

"With the pipe barriers you have a more maintainable system. Otherwise you shut down parking lots with steel cables and blocks. Every time you want to enter, it's necessary to unlock the wires with a padlock and move them out of the way," Plotner said.

The raised curbs can help prevent incidents such as the 1996 Khobar Towers truck bombing, he said. The curbs help maintain the standoff distance from the most populated buildings such as the base exchange, the dormitories, the dining facility, the club, etc.

"We're doing what we can to provide parking where we can," said Kenneth Cox, Chief of Engineering Design, Base Civil Engineering. "At the Hodja Inn we took away 60 spaces, but gave them back 60. We arranged it so they park further away from the building but still have a reasonable stand off."

Photo by Brian H. Temple

EMTA Construction Co. workers replace concrete pyramids or "Dragon's Teeth," (foreground) with higher curbs and wider sidewalks providing improved anti-terrorism protection.

Safety is not the only aspect of the new parking lots. The redesign includes aesthetic improvements such as new grass and landscaping.

Cox said that outside of the headquarters building they removed a driving lane and replaced it with grass and sidewalks fanning out from the building toward the parking lot.

The construction has incorporated grass into selected projects and bougainvilleas have been planted with the hopes that they will grow and cover walls, Cox said. He compared the bougainvillea plants to the combination of rocks, chainlink fencing, and vines that cover the ATFP (Anti Terrorist Force Protection) work used in Germany.

Plotner said that the engineers have been at Incirlik for some time, but there has been a recent shift toward force protection construction.

"Our work will make the base a safer place," Plotner said. "Part of what we do is discourage [attack by] making the base a harder target."

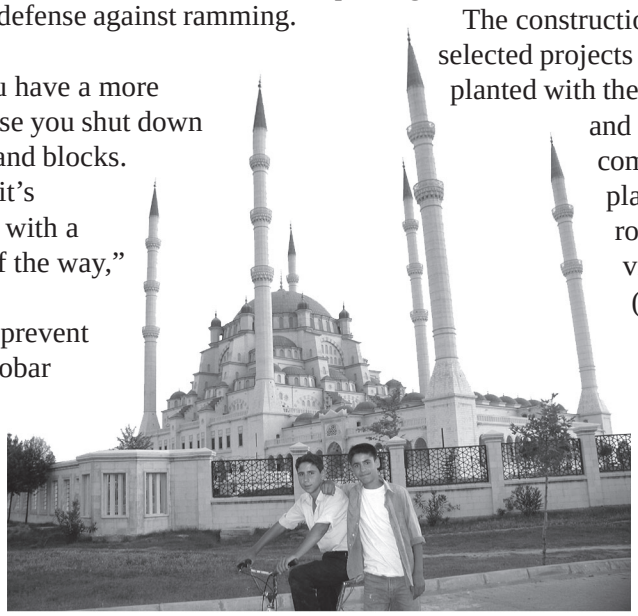


Photo Illustration by Byron S. Kimbrough

These two Adana locals pose in front of the Sabanci Central Mosque. The mosque was completed in 1998 and can hold approximately 20,000. Incirlik Air Base is located about 15 kilometers from Adana.

Israel: Bases for Peace, Ba

By Grant Sattler

Europe District's Israel Program Office is taking concrete steps, so that a long-hoped for peace may move closer to reality. The IPO is overseeing construction of three military bases being built on Israeli territory to house Israeli troops and equipment to be relocated from facilities in the West Bank. The concept is a part of the 1998 Wye River Memorandum agreement between the Palestinian Authority and Israel.

The U.S. Army Corps of Engineers is managing the construction of two infantry training bases, designed by the Israeli Defense Forces, and a design-build reserve division storage base. They will soon solicit bids for a smaller fourth site, with the fifth Wye River project scheduled to begin next year.

Photo by Grant Sattler

Kenneth Goldberg (left) talks with a supervisory foreman at the southern base site.

"It's quite unique. It's fascinating, in fact, building small cities out in the desert, out of nothing," said Col. Larry McCallister, Deputy District Engineer of the Israel Program Office.

"It's a win-win situation. The Israelis agreed to move troops out of the West Bank if they could get new facilities to move them into," McCallister said near the end of his two-year tenure as head of the IPO. "The Israelis get their troops out of harm's way and the Palestinians get the troops out of the West Bank."

Funding for the bases was included in the FY 2000 Consolidated Appropriation Act as a Foreign Military Sales case authorized under the Arms Export Control Act.

"The Corps of Engineers was pulled in to do the oversight of the construction," he said. "We started in the fall of 2000 on the ground, but the planning effort began much earlier that year."

Beginning with a handful of people in Israel – McCallister, Chief of Technical Coordination Gordon Simmons, Program Analyst Adrien Gero, Administration Officer Lorrie Lloyd, and Program Manager Rob Saari, CADD manager Ed Hiles, and others at the Europe District headquarters – the program has grown exponentially, but the IPO staff throughout Israel remains small at fewer than 20.

The Wye River program is being managed via the direct process and is unique in that it is directly fund. "The money's in the bank and that's it," McCallister said. "The Israelis are very interested in seeing that every dime goes into bricks and mortar, as opposed to paying for additional manpower. That's why on every site we have just the minimum number of Corps employees, and the Israeli Ministry of Defense (MOD) has

asis for Progress

Photo illustration of Nachshonim Storage Base job site by Byron S. Kimbrough

agreed to give us additional inspectors to help us do the work."

Work on all three of the major bases is well under way, while the next project, the Jerusalem-area Site 276 with its unique challenges because of its location and proximity to historical buildings, will begin this fall.

Southern Infantry Training Base

The Southern Infantry Training Base is situated a few kilometers north of Beersheva in the Negev desert region. Construction on this, the most remote of the three bases, began mid-March 2001 and is now over halfway to completion.

"This is in one of the isolated areas that is already being used by the Israelis for training," said Sig Milerski, quality assurance engineer for Southern Infantry Training Base 81. "Now we're building a substantial training base with the whole range of support: barracks, dining facility, synagogue, offices, gymnasium and classrooms…"

The cost of the 80-structure project is about $40 million.

Kenneth Goldberg, who like Resident Engineer David Peng, joined the SITB Project Office from Philadelphia District, said it is not often one gets to build a synagogue while working for the Corps of Engineers, especially one that faces *north* to Jerusalem. Another cultural feature of the base is its dining facility with special equipment that will ensure *kosher* dietary restrictions will always be followed, including a timer on building's power which will ensure no cooking takes place during *Shabbat*, the Jewish Sabbath.

While most of the southern base is straight-forward vertical construction, Milerski notes that all of the infrastructure – potable water, fire suppression systems, electricity, communications, sewer lines and drainage culverts had to be built before any buildings were begun. "Initially there was nothing but a goat field," Milerski said.

The installation's positioning across a narrow hill valley, bisected by a rainy season stream called a *wadi*, required that a giant culvert be installed beneath the site and 360,000 cubic meters of earth and stone to be drilled, blasted and dug from the hillsides. Three quarters of that material was re-used as fill in low places and as berms for 14 weapons firing and maneuver lanes in two ranges that are part of the base. Topsoil from the cuts was saved and stones were crushed into gravel on site for compaction into pads to serve as level foundations for buildings. But the base itself is by no means flat — facilities are positioned at varied elevations.

> *"It's quite unique. It's fascinating, in fact, building small cities out in the desert, out of nothing,"*
>
> Col. Larry McCallister
> Deputy District Engineer
> Israel Program Office

"The design is a combined Ministry of Defense and Israel Defense Forces effort," Milerski said. Construction is a joint venture by Solol-Boneh and Minrav Holdings Ltd.

McCallister said, "[The program] is quite unique for the Israelis." He said the quality and caliber of construction and the level of design effort that went into the project on the Israelis' part is a new development. "They are looking for these [bases] to be showpieces for the future in the way they want to train their soldiers and store their equipment."

See *"Israel"* on Page 20

DFAS: Customer involved throughout design process

continued from page 5

Europe District Construction Representative Peggy McBride said the structural study called for temporary installation of special I-beam and turnbuckle bracing for wooden trusses to help ease load distribution to exterior walls as floors are demolished and replaced.

The exterior appearance of the three-block long building, last used as a contingency barracks for troops flowing through to the Balkans, must be preserved because of the building's location in a historical zone.

"It's an historical facility for the German community," said John Moreno, Resident Engineer at the Kaiserslautern Resident Office. "It fronts right on the city."

Built at the advent of the 20th Century as a barracks for the German kaiser's troops, the building faced a large parade ground, now a parking lot. Changing the exterior of the building is "verboten," but most of the interior alterations are allowed. "The building will be an admin building and it will be totally gutted out and renovated, reinforcing the structure of the floors and installing a new electrical system, communications systems and local area network, phones, and handicap access with elevators. The windows were replaced 10 or 12 years ago, so they won't be replaced now," Wadhwa said. "Certain things they told us not to do, like change the design of the stairwells."

McBride said work up to this point has been concentrated on demolition. The structure has been divided into four sections for the phased removal of interior walls, electrical, plumbing and heating systems and the removal of floors by a 30-member crew with contractor SKE Maintenance GmbH. Interior floors, while sound enough for use as a barracks, did not have the load-bearing capacity necessary for systems furnishing and heavy files and automation equipment that will be going into the building. Structural demolition began March 11, 2002 with the removal of the attic floor slab on the north end of the building.

"Up to this point, we've been concentrating on the demo," McBride said. "You've got to get the demo right because it's so dangerous. When they're jack hammering on the floor they're standing on three stories up, getting them to tie off properly is important." Safety enforcement is Europe District's responsibility because the project is being executed directly.

The main work visible now on the exterior is the removal of the roofing tiles so that a moisture barrier and new lattice can be installed. "We're going to reuse a lot of the roof tiles, and the pavers, which on a project this size saves a lot of money," McBride said. "The roof tiles are in good shape. It's surprising to see how many they can save."

Like reusing materials, limiting modifications to a design while construction is ongoing can also limit costs. Close coordination between DFAS and Europe District and the input of the 26th Area Support Group and 415th Base Support Battalion Directorates of Public Works on the building's design are keeping work within budget.

"During the design phase there was intensive coordination between Corps designers and DFAS. They were going through the drawings again and again, so we don't expect any changes," said Project Engineer Rudi Mehrmann. The Europe District design team included architects Winfried Aust and Horst Zenker, electrical engineers Caecilie Kloeter and Konrad Hiller, mechanical engineer Alfred Waldhofer, CADD technicians Andreas Busch and Clau Dey, and translator Kieran Sheehan.

> *"You've got to get the demo right because it's so dangerous."*
>
> Peggy McBride
> Construction Representative

McBride said the customer will be even more involved at the worksite as the project gets closer to completion, such as when installation for electrical, LAN and phone lines is to begin. "That's when we want them here, so we can be sure everything is right where it needs to be," she said. "It also helps them become more familiar with their new facility."

Wadhwa said the Europe District will contract for installation of the modular office furnishings to be used throughout the building, making it a turn-key project, ready for occupancy.

Wadhwa said the hard work of all involved is leading to success for this major MCD project. "The customer is pleased so far, and at this point we don't see any future major problems other than normal construction issues. It's a major thing we're doing out there and the word will get around."

Celebrating Construction German Style
Anbach's "Richtfest" Rare Occassion

By Brian H. Temple

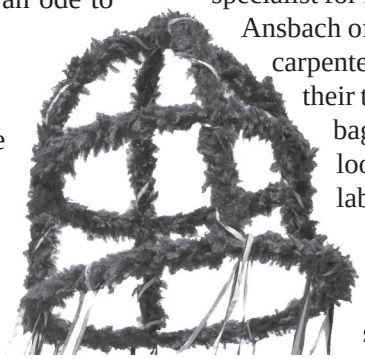
At the sound of glass breaking a cheer went up from the 120 German carpenters, architects, construction workers and guests gathered on Ansbach's Katterbach Kaserne, May 15. In a time-honored tradition a master carpenter guzzled a glass of wine and then shattered his glass against a brick wall of an unfinished barracks building to wish health and prosperity to its future occupants.

The *Richtfest*, or "topping off" ceremony, celebrated the installation of the last roof supporting rafter of Building 5815, a $16.7 million, 240-room barracks project, managed by the U.S. Army Corps of Engineers, Europe District.

"The Germans have a saying that broken glass brings good luck to you. And that's what's behind throwing the glass - and the glass must break … It is a blessing to the house," said Axel Labs, master carpenter with Firm Ullrich Wendler, and emcee for the event.

He said the Richtfest is a time-honored ritual accompanying the completion of the shell and roof construction of a dwelling. The master carpenter reads an ode to the carpenter, makes several toasts and then places a decorated evergreen tree upon the completed roof.

In larger projects such as Building 5815, a crown made of tree branches is dressed with ribbons and hoisted from a crane over the site. Both the tree and the crown are symbols of continued fortune.



Richtfest crown

Labs said when the roof is done the building owner pays for a celebration for the people who erected the building.

Ursula Pfefferlein, a contract specialist for Europe District's Ansbach office said that carpenters used to travel with their tools and a sleeping bag and went site to site looking for work.They labored for months on a project with little time off, and the Richtfest was a suitable time for them to party. It was also a turning point, as they had to say goodbye to friends and search for more work.

Because of its deep roots, the ties to a Richtfest go beyond what some may see as superstition – tradition dictates that the ritual take place.

"If you are the owner of the building and you're too stingy to spend the money on the Richtfest, what some of the workers do is put up an upside down broom [on the roof] and that tells your neighbors, 'ah look at this person, he didn't pay for the fest,'" said Pfefferlein.

According to folklore, she said, if you do not hold a party you have a good chance of being a miserable family when you move into the house.

Photo by Brian H. Temple

(from left to right) Gerhard Koffler, U.S. Army Corps of Engineers project engineer; Dieter Wagner, Bauleitung Weiss, Hohe and Partner; and Holger Kunze and Jens-Uwe Schüler of Züblin construction, hammer roof nails into the rafters of an Ansbach barracks project to prove they still have the "oomph" to do a carpenter's work. Koffler and others participated in a *Richtfest* on Katterbach Kaserne, May 15 along with Axel Labs (behind), a master carpenter with firm Ullrich Wendler.

See *"Richtfest"* on Page 17

Ed Argueta Project Engineer

By Grant Sattler

In May 2000, Project Engineer Ed Argueta traded in the American Southwest for a tour of duty in northern Bavaria with the Ansbach Project Office. With 15 years experience with the U.S. Army Corps of Engineers Fort Worth District and its Southwestern Area Office, Argueta was looking for different challenges.

He has found them working on $24.6 million worth of barracks renovations and a dental clinic for the 235th Base Support Battalion in Ansbach, earning Europe District's nomination for the USACE Hard Hat of the Year award for 2001.

Most of Argueta's projects at the White Sands Missile Range were complex research and development facilities. Here he has found the complexity not in the design of barracks to the U.S. Army Europe 1 + 1 standard, but in dealing with different types of customers and coordinating with different agencies.

"This is something new," Argueta said. Working with German government engineers in the *Staatsbauamt* and learning different approaches to construction projects on the job has been very valuable, he said. "Things are done differently here, but they accomplish the same thing."

Since joining the Ansbach Project Office, Argueta has assured project quality to the satisfaction of the Directorate of Public Works and tenant unit customers, ensured timely and accurate contract administration, and worked with his project delivery teams to turn around projects that were behind schedule.

To accomplish that, Argueta had to be a quick study on the indirect process, coordinating with the *Bauamt* and learning German construction and safety standards.

"The language is certainly a challenge," he said. Communicating with people from different backgrounds and with different skills on a multicultural job site can be difficult.

> *"Things are done differently here, but they accomplish the same thing."*
>
> Ed Argueta
> Project Engineer

"You need feedback so that you know you've had a meeting of the minds — that understanding," Argueta said. "I've already seen several instances where you think they understand what you're trying to convey to them, but they take it completely differently. If you don't get that closure, or feedback loop, confirming that you have that mutual understanding, there can be surprises."

Argueta, who earned his bachelor's in civil engineering in 1985 from the University of New Mexico but attended rival New Mexico State University at Las Cruces to earn his master's in industrial engineering, said he enjoys working as a team leader with seasoned and knowledgeable colleagues.

But the chance to work with great people, a job change and promotion potential were not all that motivated him to move to Ansbach with his wife Vanessa and daughters Nicole, 14, and Lauren, 8. He wanted the chance for his

See *"Argueta"* on Page 17

Argueta: Continues his service as a teacher to fill void

continued from page 16

children to see a different part of the world. "They really like it here."

His interest in learning has other outlets as well. Argueta has also served as a mentor for co-workers and DPW employees as a Construction Quality Management Course instructor for Europe District. Outside of duty hours, he is a part time mathematics instructor with Embry Riddle Aeronautical University. The instructor roles fulfill a need he filled in the past working with the Upward Bound program as a tutor and math instructor during the summer months in New Mexico for high school students who are first generation college-bound.

In the meanwhile, Argueta is busy completing the renovation of the Illesheim dental clinic, finishing the final environmental upgrade on Barton Barracks for the last of five POL gas stations, and completing the renovation of Building 5815. Other projects will include upgrading the Katterbach railroad off loading station to TüV standards and future barracks renovations to Buildings 5818 and 5843 to the 1+1 standard.

RMB: Board meets in Europe, advances regionalization

continued from page 9

"If we drew a line to see where all the Regional Business Centers are, I think we'd be farther along in the implementation," Turek said.

For example, some of the results include collaboration between the six districts in NAD on the acquisition of regional environmental and MATOC contracts, or the sharing of engineering expertise. An example was the recent RMB assessment, that shore protection engineering expertise should be located primarily in two districts for purposes of economy and sustaining of expertise and support the others with shore protection programs.

Europe District has benefited from the regional management concept by using the engineering depth of Norfolk, New York, and Baltimore Districts, and the support of the Philadelphia and New England Districts in manning the Israel Program offices. One item of business, which will be direct interest to the members of the district was recommendation by the RMB to establish some high-grade technical engineer positions in the districts to sustain expertise and regional support. The Field Force Engineering doctrine for contingences support implemented within NAD, depends directly on regional teaming.

Turek said RMB members collectively agree that in the past they have not done a good job communicating to the workforce what happens at the RMB and BOT level. "We're doing a better job, each of the RMB members are making sure they're sharing things," Turek said. "It's hard when you work as six separate businesses and then have to work as a single business. [People want to know] what does the Regional Business Center do for me?"

She said people can learn more at the RBC's web site at: www.nad.usace.armyh.mil/RBC/rbc.htm

After the conclusion of RMB business, members were educated about the significance of their historic European location and U.S. Army heritage by participating in a professional development staff ride of key World War II battlefields. RMB members learned how tenacity, incredible courage, and teamwork overcame extraordinary challenges in December 1944 at the "Battle of the Bulge." Led by a professional military history guide, the staff ride included stops at memorials at Bastogne, Belgium and Luxembourg City, Luxembourg.

Richtfest: Crowns hoisted, glass broken, new barracks will be blessed

continued from page 15

Pfefferlein said although the Corps traditionally funded these celebrations as part of the contract, the funding stopped after a legal review about 15 years ago. It was decided that U.S. taxpayer's dollars would not be used to fund this type of get-together.

She said the issue is not one that would cause insult, but the question does come up.

"As members representing the U.S. government there are problems explaining why the contract does not fund a Richtfest," she said.

Züblin, the contractor working with the Corps, funded this particular event for the employees without taking offense and continued the tradition of wishing others well.

Good luck and prosperity should continue for Building 5815. Labs, who has more than 100 Richtfests under his belt, did shatter his glass, and not only one, but two crowns were hoisted over two of the four wings of Building 5815.

Europe Distrist Helps 'Prep Battlefield' in Bulgaria Exercise

By Grant Sattler

Europe District's International Engineering Center recently helped "prep the battlefield" for U.S. European Command's engineering exercise Cornerstone 2002, which began June 3 in Bulgaria.

Europe District preparations for four diverse construction and renovation projects in the months preceding the Bulgaria-based exercise helped U.S. military engineers and the engineer task force of the seven-nation South East Europe Brigade (SEEBRIG) to accomplish their training objectives. Work involved renovation of a four-story barracks, construction of a new bridge and repair of another, and renovation of an orphanage.

Capt. Jason Kalainoff, commander of 38th Engineer Company, 130th Engineer Brigade from Hanau, Germany, explained that Cornerstone 2002 allows the members of SEEBRIG to work together to prepare their engineers to respond to a natural disaster or some other contingency mission. "It's [also] a chance for American engineers to practice deployability tasks while working with members of other nations," he said.

Cornerstone 2002 included engineer troops from Albania, Bulgaria, Romania, Turkey, the Former Yugoslav Republic of Macedonia, Greece, and the Seabees, and active and reserve Army and Marine engineers from the United States military.

Cornerstone 2002, the ninth since 1995, is helping non-NATO participants learn more about the alliance, IEC Project Manager Tim Huwe said. "These nations seek interoperability with NATO. It's an opportunity for them to work with our soldiers, learn what our soldiers do and how they do it. We learn some lessons from them, too. As we interoperate, it enhances their ability to join NATO at some point in the future," he said.

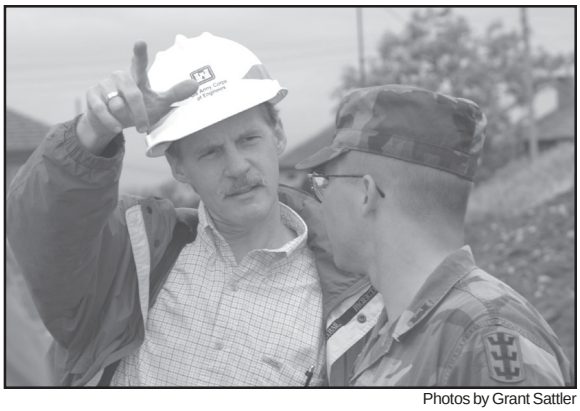
As part of the exercise, V Corps' 130th engineers conducted training. "The soldiers in my company will be teaching training on the medium girder bridge, on the trestle bridge and the compact 200 bridge to members of SEEBRIG forces," Kalainoff said.

But even as early as March, the 130th Engineer Brigade began work as the lead agency for the exercise, renovating a barracks to be used to house the exercise participants at the Bulgarian Engineer Regiment 44220 base camp in Plovdiv.

Huwe said "[Europe District] assisted troops getting set up with contract support to get their barracks in place so they have a place for a task force headquarters and to live and eat while they're out here doing their work."

Renovations by the 130th engineers, who are usually bridge builders, included extensive interior plumbing, masonry, painting, carpentry and electrical work, installation of new parquet flooring and complete rebuilding of toilet and shower areas. The host nation demolished the existing toilet facilities and the Corps scoped the work for planning for the

See *"Cornerstone"* on Page 19



Photos by Grant Sattler

(Left) Project Manager Tim Huwe talks with Capt. Jason Kalainoff, commander of the 38th Engineer Co., 130th Engineer Brigade, prior to the kick off of Cornerstone 2002 in Bulgaria.

(Below) The Sinitevo bridge standing nearly ready for Seabees to complete.

Digging It Up For Maintenance

Courtesy photo

Breaking ground April 22 for the 299th Forward Support Battalion's $7 million maintenance shop on Conn Barracks, Schweinfurt are (pictured) Project Engineer John Adams; Lt. Col. Timothy Gorrell, commander 280th Base Support Battalion; (behind) Col. Dennis Dingle, commander 98th Area Support Group; Klaus Glöcke of Glöcke GmbH; DISCOM commander Col. Mark Bellini; Brig. Gen. Douglas Lute, 1st Infantry Division; and Norbert Böhm, Staatliches Hochbauamt, Bad Kissingen. Also participating were Col. Peter Plamer, commander 2nd Brigade, 1st Infantry Division; and Lt. Col Hook, 98th ASG DPW.

Cornerstone: Building new bridges, improving teamwork

continued from page 18

renovations and materiel purchases, Huwe said.

1st Lt. Natalie Card, brigade construction management officer said, "The Corps of Engineers wrote the contract for all the major items we knew beforehand were beyond the realm of troop labor. They went through the whole legal process and contracted that for us to ensure it was done in accordance with American standards and government regulations."

The renewed 22,000 square foot barracks facility was turned over to the Bulgarian army for use in the Cornerstone 02 Exercise on June 2.

In a cost-saving move, the 130th Engineer Brigade's presence for the barracks renovation allowed the Corps to designate Card as the Contracting Officer's Representative for the exercise projects.

"It worked out very conveniently," Card said. "Someone from the 130th had to be intimately involved in all the projects and at the same time the Corps needed to be here on the ground to monitor all these contracts. Simply to come here periodically would not have been enough to enable [Europe District] to monitor the USACE contracts. The contractor needed a lot more guidance and daily supervision," Card said.

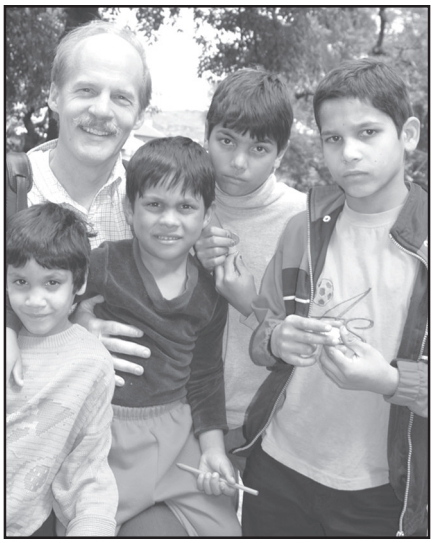


Photo by Grant Sattler

Tim Huwe meets some of the children at the Anna Gizdova Orphanage at Bratzigovo, Bulgaria.

The dual-hatting not only saved money, but provided a unique opportunity for the lieutenant.

"The personal benefit is outstanding," Card said, indicating the role increased her knowledge of all aspects of the projects. "I would never get to work this much with a contractor in the rear. It's good for a civil engineer like myself to get this opportunity."

In addition to the barracks renovation, Huwe said another key to Cornerstone's success was the contracted construction work to partially complete a five span bridge over the Miritza river which separated the village of Sinitevo from markets in area towns.

Huwe explained Europe District's multiple roles. "It's providing technical expertise to help this exercise and the Army, and to get the contractor in place here to set up the project so that troops can complete the bridge within the time available."

See *"Cornerstone"* on Page 23

Israel: Security may affect construction continued from page 13

For the southern base that means IDF Logistics Branch Construction Center designers considered the psychological aspects of training a cohesive infantry company and the impression the design and layout of the facility will make upon trainees.

Aesthetics are also considered. The MOD/IDF design incorporates regional style with cut stone facades along the main street and roof tops designed to hide unsightly air conditioning units — one feature of the new training base that has some Israeli soldiers referring to it as the "Hilton for soldiers."

"It will be a lot more comfortable for the trainees with air conditioning for all the buildings," Milerski said. Compared to training locations now used, the southern base and its sister base, the Northern Infantry Training Base, will have larger rooms, more barracks space, more common use areas, a larger, more efficient dining facility, a gymnasium and running track, he said.

Nevertheless, it is their new locations inside Israel that trainees will most appreciate.

"I think they will appreciate moving to a new facility and a new area that is safer for the soldiers and their families when they come to visit them as they go through basic training," Milerski said. Parking outside the facility is designed to accommodate family visitation days once trainees occupy the new southern base.

With an aggressive 18-month construction schedule, completion was set for October 2002, but has been delayed by heavy spring rains that converted the choking desert dust into slippery ooze that mired men and equipment for weeks on end.

Firing ranges were finished in January and since that time the 10 company quarters areas, company headquarters, staff housing and all the support facilities have taken shape. However, the security situation in the country may impact the contractor's ability to continue work on schedule. As the type of work changes to finish work, different workers with different skills are needed. As of last December, Israeli Ministry of Labor rules prohibit bringing Third Country Nationals into the country.

"[The situation] is Israel-wide. It is not directed against our projects. The labor issue is affecting the entire construction industry across Israel," McCallister said. The IPO is working through the Israeli MOD Building and Construction Department to see what solutions can be found. "We look at our projects as not any more special than any other construction projects, but these were agreed upon country to country," he said. "We've notified all the authorities that there will be impact if we don't get relief. It's going to be time and money, and money's critical."

(Right) Nachshonim Storage Base Project Office electrical engineer Helmut Walter talks with a contract supervisor about installation of portals in the wall of the prototype Dry Storage Building Type A. The dry storage buildings on the base will be sealed and pressurized to control humidity and temperature.

Photos by Grant Sattler

(Below) The helopad for the Southern Infantry Training Base overlooks the structures taking shape. Beyond the hills lies the "Greenline," the demarcation between Israel and the West Bank.

Northern Infantry Training Base

The Northern Infantry Training Base, located near Hadera, mirrors the southern base in design, but is site modified for a hilltop location adjacent to an existing IDF training camp.

The northern base is being constructed as a sole venture by U. Dori Engineering Works Ltd., an Israeli company.

"Normally, under Foreign Military Sales the contractor has to be a U.S. company, but under Wye River, Israeli firms could do it alone," said Michael Tibbs, a project engineer at the northern base. "In the three bases we have all three combinations: U.S., Israeli, and joint venture between U.S. and Israeli.

"Another difference, besides the terrain, is they're building more firing ranges," Tibbs said. "We have six [existing lanes] we're modifying, two we're making longer and we're building two more on the existing range in phase one."

The construction of an additional four ranges northwest of the base, is on temporary hold due to an archeological find where it is to be built. "It rests atop of what is believed to be an ancient city," Tibbs said. He hopes a planned excavation to determine the extent of the archeological site will allow a shift of the range closer to the base.

The contractor is planning on obtaining fill for the center of the base from soil removed from the present hilltop range location.

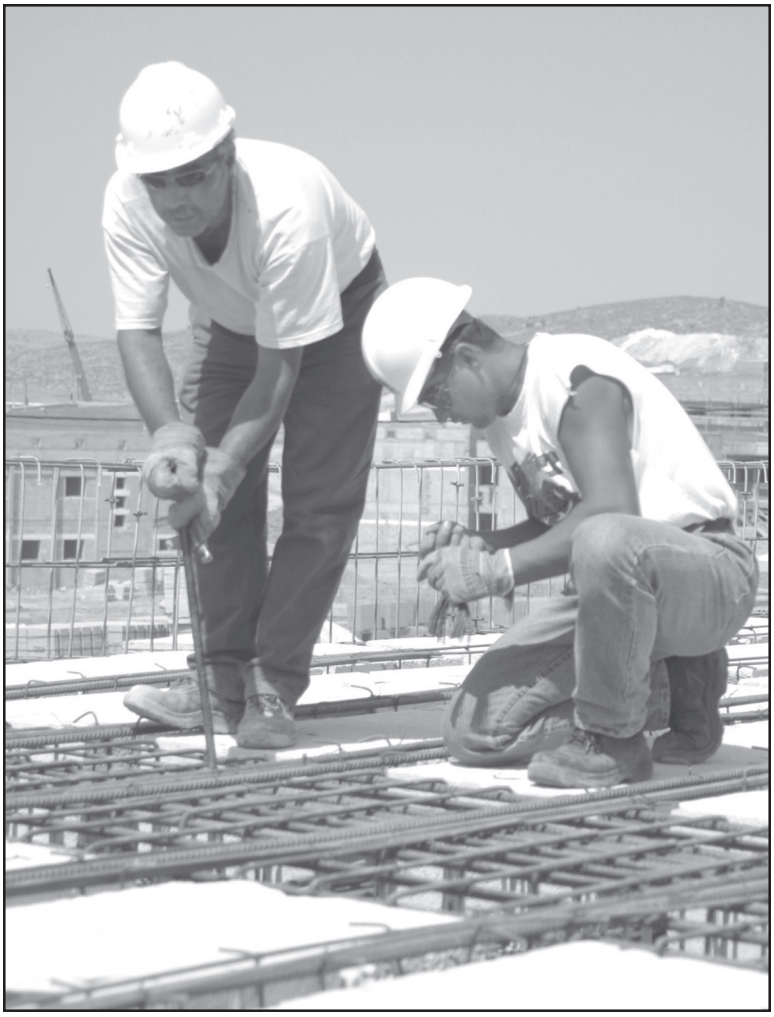
"He needs that soil," Tibbs said. If the range cannot be built, it could necessitate a major contract change because fill materiel would have to be trucked in from off site. The archeological issue is key because work on some of the buildings cannot begin before the earthwork is completed.

Although the northern base is the last of the three to be started — ground was broken in February of this year — work is moving ahead quickly and the contractor is erecting cranes for a different building technique than that used at the southern base.

"At the southern base a lot of the buildings were going up at the same time. Our contractor wants to start with a technique that he feels will be more efficient and effective using six tower cranes. They will start with the [10] barracks facilities, doing one at a time, in hopes to overcome the manpower shortage by moving workers to each building," Tibbs said. Cranes will move pre-built forms from building to building.

Probably the most critical facility on any training base, the dining hall has been started already to avoid some difficulties experienced at the southern base.

"We're really appreciative that there's a base 8-months out in front of us. The value of the southern base and the lessons being learned can't be overstated," Tibbs said. Also of tremendous value is that the same IDF project manager is involved with each location, Tibbs said.



(Above) Workers tie in rebar in preparation for placing concrete for a roof at the Southern Infantry Training Base.

(Left) Sig Milerski, quality assurance engineer for the $40 million Southern Infantry Training Base, stays hydrated.

The current problem with bringing foreign workers also may affect the northern base in the future. "The southern base is out in front, hopefully they'll solve it. We can get some [workers] from the southern base because they'll be finishing, but the Central Base will be competing for same personnel," Tibbs said. He expects, however, that the IDF will place priority on completing the training bases, as they impact the greater number of people.

See *"Israel"* on Page 22

Israel: Massive amount of earthwork needed on projects

continued from page 21

Nachshonim Storage Base

The Nachshonim Storage Base, commonly called the central base, east of Tel Aviv, is a $125 million dollar base designed for long-term storage and maintenance of IDF combat equipment and vehicles.

"It is the biggest project in the Wye River program, a pretty significant step towards stabilizing things here in the Middle East," said Jody Blackburn, Resident Engineer.

"It's an Army reserve armored division maintenance and storage facility that covers about 320 acres," Blackburn said. "One of the purposes of this site is to provide a place to reposition reserve units from other areas within Israel and within the West Bank. It will increase Israel's readiness to any adverse actions and therefore it will add to the stability of the area." The facility will store the supplies, vehicles, weapons, ammunition and materiel for artillery, infantry and armored brigades that will fall in on their equipment during a call up.

Photo by Grant Sattler

Jody Blackburn watches excavation work at the central base.

Construction began in September 2001 and is being accomplished by a U.S./Israeli Joint Venture firm of ABB SUSA, A. Arenson, and Baran Group as a design-build project. Project duration is three years with completion expected in summer 2004.

Like the southern base, the central base location also required a massive amount of earthwork, over 2.6 million cubic meters of excavation, and required construction of a 1.1 kilometer box culvert large enough to drive an ATV through beneath the site. "In no way will the site be flat," Blackburn said. "We're moderating the relief to the point where we can build on it.

The central base is laid out like a pie with 10 wedges. Roadways, like spokes in a wheel, connected an interior and exterior ring road. When completed, 205 structures will be rest at varied elevations around the base. The core of the base is a logistics center for equipment maintenance and administrative space, dining halls and support facilities for a cadre of about 500 people. More than half of the base structures are dry storage buildings designed to maintain low humidity and temperature. There are 14 different types of dry storage buildings.

"The contractor is building a prototype Dry Storage Building Type-A now to test, but foundations are being prepared for others," Blackburn said. The buildings are sealed to maintain overpressure inside and will all be monitored from a central location.

"With the infrastructure design finished, the contractor has started construction while design work continues." The IDF is intimately involved in all phases of the Design-Build project along with the Corps and the Joint Venture. "We are used to giving criteria to a contractor for design and then checking if the design meets the criteria," Blackburn said. "Here the IDF is checking to see if it meets their standards, not just the criteria, so it's a bit more design review than is normal for a Design-Build.

"We have good working relationships with the managers within the IDF and have contact with them every day," Blackburn said.

Other Projects

While the Wye River program and requirement to be the manager for FMS is the reason the Corps is in Israel, the IPO's presence has also allowed the Israelis to opt for the Corps to manage additional projects they've chosen to use other FMS funding to build. So far, those projects include construction of two flight simulator buildings for the Israeli Air Force, an aircraft refueling system at Nevatim Air Base and renovation of a Patriot missile maintenance facility.

"It's timing, they see what we [the Corps] bring to the table in terms of quality, safety and professionalism," McCallister said. Conditions that make the prospect of more work coming to the IPO a likely one over the next few years as the Wye River and Israel programs continue.

Cornerstone: Humanitarian work puts smiles on childrens' faces

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"The contractor has laid the 'groundwork' for the troops to come in and finish the job," he said. The Corps was involved in the design process, reviewing the design and in making sure the contracting process went smoothly.

U.S. Navy Seabees arrived during the exercise to complete the decking, railings and the approaches to the Sinitevo bridge.

Huwe said, "The object here is to provide some humanitarian assistance by giving the Bulgarians back a bridge that they lost in a flood a number of years ago, so we've sited a bridge that will be a good training project for our engineers and do it in partnership with the SEEBRIG and the South East Europe Defense Ministerial Nations. It's really an international effort." The 110-meter long bridge was a real value, costing only $300,000.

Downstream about five kilometers at the town of Ognianovo is the site of a second bridge being worked on with humanitarian assistance funds as a part of Cornerstone 2002.

Marine engineers from NMCB 7 took on the repair of damaged girders and the replacement of 170 meters of asphalt decking with a reinforced concrete deck to allow the bridge to be re-rated to 30-ton capacity, Huwe said. Contract workers removed the substandard bridge surface.

Although completing two bridges that will economically benefit the people of Bulgaria is something the engineers can feel good about, work accomplished at the Anna Gizdova Orphanage at Bratzigovo will even more directly impact the lives of the 84 children living there.

Engineers from the Tennessee National Guard, Bulgaria's Partnership for Peace partner state, worked on the orphanage during the exercise.

"For each Cornerstone exercise the host nation will recommend projects to us. This year they recommended this orphanage because it definitely has substandard facilities where the children have to shower, and in the kitchen," Card said. "The scope of work entails an entire renovation of all the bathroom facilities, the electrical system, new circuit boxes, lighting, cosmetic building repairs, adding doorways, closing other doorways in, painting, and work in the kitchen.

"This isn't typical troop construction like that for ranges and troop facilities," Card said. "It's definitely a finer quality product that we're leaving behind."

When asked about learning that her facility had been chosen for the work, orphanage director Maria Najenova said through a translator, "I couldn't believe it. I wanted it to be true, not a dream. But more interesting was the reaction of the children. They all asked what the new home would look like and they began to draw pictures."

The children were temporarily relocated to another facility during the renovation. Card said engineers will leave a better facility behind for the children and improve their quality of life, but even bigger benefits come from the relationships between the seven nations involved in the exercise, " …working on that relationship and leaving a good impression of America."

Najenova said, "I think that biggest 'thanks' to the U.S. Government will be the smiles on the children's faces when they come back to their new home."

Rewarded for a "Can do" Attitude

Lt. Gen. Daniel Petrosky, United States European Command Chief of Staff (left) congratulates Joseph Zaraszczak, project engineer for the Stuttgart office, after he awarded him with a certificate of appreciation in Stuttgart in May. Zaraszczak received the kudos from Petrosky for his oversight of the $1.4 million renovation of the EUCOM headquarters. Zaraszczak's supervision of 14 sub-contractors during the construction, and his ability to keep the project moving through daily visits of dignitaries without interruption, was recognized by the leadership.

FFE: Field Force Engineering greatly appreciated in the field

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Flowers said that commanders are able to leverage the entire engineer regiment - uniformed soldiers, civilian contractors, academia, and laboratories - and focus them to solve a problem any place in the world.

It works without question, Semonite said.

"There are many things going on in the rear where I don't have the time, or a lot of times, the expertise to be able to accomplish it all, and that's where I reach back to the Corps," he said.

Solving problems in the field is what Field Force Engineering is designed to do, and by having USACE boots on the ground to nudge the process along, the customers get better service.

As a forward deployed "one man show," one Europe District officer supported V Corps during the week-and-a-half-long exercise. Maj. Ernie Edgar, a reservist for the Europe District who works as an attorney practising government contracts law in Washington, D.C., headed to Grafenwöhr to be the U.S. Army Corps of Engineers' plug into U.S. Army, Europe's war fighting machine.

Edgar, a Forward Engineering Support Team member, was there to get V Corps commanders the answers they needed.

"I've been pinch hitting on the combat stuff where it has been appropriate, but by and large it has been plugging into the Corps and giving the V Corps engineer answers so he can provide engineering support on the battlefield," Edgar said.

Edgar's presence saved the brigade valuable time.

One of the biggest tactical challenges engineers faced during the exercise was how to get troops across a river in which the hydrology was "very, very complicated even by river standards," Edgar said.

"It's not the water that's the problem, its the dirt," Edgar said. "It's the kind of obstacle where there isn't enough bridging available. So, now we have to figure out what other bridging options there are that aren't in the traditional combat engineer inventory."

Photo by Brian H. Temple

Maj. George Simon, operations officer for the 130th Engineering Brigade (left), updates Lt. Gen. Robert Flowers, Commanding General of USACE, on the common operating picture while Col. Todd Semonite, Commander, 130th Engineer Brigade, looks over the status of the battlefield.

Edgar said a solution could be found with Corps' talent troubleshooting the river. How does too much, or too little water affect construction? Would the soil enable them to use vehicles to cross?

"We've had a lot of dialogue with the guys back in Vicksburg on 'here's an idea what do you think? Here is a problem, can you do the analysis?'" Edgar said.

The dialogue via these deployable communications systems is instantaneous and, in combat, the quick turn around on answers can save lives. When faced with getting 50,000 troops across a body of water, tapping into these engineer resources makes sense, Semonite said.

"I can have a lieutenant who has a degree in civil engineering, but doesn't have any experience, sit down and try to note something out, or I can just say, 'get on the horn, tell Vicksburg I need a design and send me a blueprint,' and then my engineers will put it in the river," Semonite said. "That's what we're doing here."

Edgar said the main significance of the FEST teams today, versus the ad hoc methods of begging, borrowing, and stealing to get people into the theater, is that USACE can now start to get into the planning stages on the "ground floor."

"We've never been in at the beginning of a crisis, and that's probably the biggest reason to go with Field Force Engineering … to establish doctrine that puts us, if not in a seat at the table, at least in the room whispering in that staff engineer's ear, 'hey I can do this for you. I've got that capability. You need to be thinking about this … based on our past experience,'" Edgar said.

Edgar and Semonite both working together through the planning stages to ensure that logistical and combat operations are ready is a way to work toward success. Field Force Engineering is gradually moving from doctrine to reality and customers and providers are working together to reap the benefits.

"We are only just beginning to see the real contributions that this Field Force Engineering can bring, as we are better able to apply the engineer regiment as a whole to solve problems in the field," Flowers said.